

3754
JFW #

PTO/SB/11 (09-04)

FEB 13 2006



TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

	Application Number	10/045,132	
	Filing Date	October 23, 2001	
	First Named Inventor	B. Scott Driggs	
	Art Unit	3754	
	Examiner Name	Eric S. Keasel	
Total Number of Pages in This Submission		Attorney Docket Number	20174C-002910US

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): SB/08 167 References Return Postcard
<input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address	
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Certified Copy of Priority Document(s)	Remarks	The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.
<input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Townsend and Townsend and Crew LLP		
Signature			
Printed name	Patrick M. Boucher		
Date	February 10, 2006	Reg. No.	44,037

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

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Typed or printed name	Janet L. Newmaker	Date	February 10, 2006

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PATENT & TRADEMARK OFFICE

February 10, 2006

TOWNSEND and TOWNSEND and CREW LLP

By: Janet L. Newmaker
Janet L. Newmaker

PATENT

Attorney Docket No.: 20174C-002910US
Client Reference Nos.: CIT 3318 and
C129.210.US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

B. Scott Driggs et al.

Application No.: 10/045,132

Filed: October 23, 2001

For: Electrostatic Valves For
Microfluidic Devices

Customer No.: 20350

Confirmation No.: 2449

Examiner: Eric S. Keasel

Art Unit: 3754

**SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT
UNDER 37 CFR §§ 1.97 AND 1.98**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references (in compliance with the requirements of 37 CFR §1.98(a)(2)) are enclosed.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

02/14/2006 AWONDAF1 00000120 201430 10045132

01 FC:1806 180.00 DA

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account. A duplicate copy of this Statement is enclosed for that purpose.

Respectfully submitted,

Pat M. Boucher
Patrick M. Boucher
Reg. No. 44,037

Date: February 10, 2006

TOWNSEND and TOWNSEND and CREW LLP
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PMB/jln
60700112 v1



Substitute for INFORMATION DISCLOSURE STATEMENT BY APPLICANT INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				
Sheet 1		of 16	<i>Complete if Known</i>	
			Application Number	10/045,132
			Filing Date	October 23, 2001
			First Named Inventor	B. Scott Driggs
			Art Unit	3754
			Examiner Name	Eric S. Keasel
			Attorney Docket Number	
			20174C-002910US	

U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A1	US-3,570,515	03-16-1971	Kinner
	A2	US-3,747,628	07-24-1973	Holster et al.
	A3	US-4,046,159	09-06-1977	Pegourie
	A4	US-4,119,368	10-10-1978	Yamakazi
	A5	US-4,153,855	05-08-1979	Feingold
	A6	US-4,245,673	01-20-1981	Bouteille et al.
	A7	US-4,373,527	02-15-1983	Fischell
	A8	US-4,399,219	08-16-1983	Weaver
	A9	US-4,434,704	03-06-1984	Surjaatmadja
	A10	US-4,575,681	03-11-1986	Grosso et al.
	A11	US-4,662,710	05-05-1987	ten Berge
	A12	US-4,898,582	02-06-1990	Faste
	A13	US-4,992,312	02-12-1991	Frisch
	A14	US-5,085,562	02-04-1992	Van Lintel
	A15	US-5,088,515	02-18-1992	Kamen
	A16	US-5,096,388	03-17-1992	Weinberg
	A17	US-5,126,115	06-30-1992	Fujita et al.
	A18	US-5,164,558	11-17-1992	Huff et al.
	A19	US-5,171,132	12-15-1992	Miyazaki
	A20	US-5,224,843	07-06-1993	Van Lintel
	A21	US-5,259,737	11-09-1993	Kamisuki et al.
	A22	US-5,265,327	11-30-1993	Faris et al.
	A23	US-5,290,240	03-01-1994	Horres, Jr.
	A24	US-5,336,062	08-09-1994	Richter

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (**optional**).² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
Sheet	2	of	16	Application Number	10/045,132
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				Examiner Name	Eric S. Keasel
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A25		US-5,346,372	09-13-1994	Naruse et al.	
A26		US-5,375,979	12-27-1994	Trah	
A27		US-5,400,741	03-28-1995	DeTitta et al.	
A28		US-5,423,287	06-13-1995	Usami et al.	
A29		US-5,529,465	06-25-1996	Zengerle et al.	
A30		US-5,574,893	11-12-1996	Southgate et al.	
A31		US-5,593,130	01-14-1997	Hansson et al.	
A32		US-5,642,015	06-24-1997	Whitehead et al.	
A33		US-5,656,155	08-12-1997	Norcross et al.	
A34		US-5,659,171	08-19-1997	Young et al.	
A35		US-5,660,370	08-26-1997	Webster	
A36		US-5,665,070	09-09-1997	McPhee	
A37		US-5,681,024	10-28-1997	Lisec et al.	
A38		US-5,705,018	01-06-1998	Hartley	
A39		US-5,759,014	06-02-1998	Van Lintel	
A40		US-5,775,371	07-07-1998	Pan et al.	
A41		US-5,788,468	08-04-1998	Dewa et al.	
A42		US-5,842,787	12-01-1998	Kopf-Sill et al.	
A43		US-5,854,684	12-29-1998	Stabile et al.	
A44		US-5,875,817	03-02-1999	Carter	
A45		US-5,876,187	03-02-1999	Afromowitz	
A46		US-5,932,799	08-03-1999	Moles	
A47		US-5,942,443	08-24-1999	Parce et al.	
A48		US-5,997,961	12-07-1999	Feng et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/045,132
Sheet	3	of	16	Filing Date	October 23, 2001
				First Named Inventor	B. Scott Driggs
				Art Unit	3754
				Examiner Name	Eric S. Keasel
				Attorney Docket Number	20174C-002910US

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Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A49	US-6,043,080	03-28-2000	Lipshutz et al.	
	A50	US-6,123,769	09-26-2000	Sanjoh	
	A51	US-6,155,282	12-05-2000	Zachary et al.	
	A52	US-6,174,365 B1	01-16-2001	Sanjoh	
	A53	US-6,246,330 B1	06-12-2001	Nielsen	
	A54	US-6,296,673 B1	10-02-2001	Santarsiero et al.	
	A55	US-2001-0027745 A1	10-11-2001	Weigl et al.	
	A56	US-6,329,209 B1	12-11-2001	Wagner et al.	
	A57	US-2002-0005354 A1	01-17-2002	Spence et al.	
	A58	US-2002-0014673 A1	02-07-2002	Leedy	
	A59	US-6,345,502 B1	02-12-2002	Tai et al.	
	A60	US-6,358,387 B1	03-19-2002	Kopf-Sill et al.	
	A61	US-2002-0037499 A1	03-28-2002	Quake et al.	
	A62	US-2002-0045297 A1	04-18-2002	Leedy	
	A63	US-6,375,871 B1	04-23-2002	Bentsen et al.	
	A64	US-6,376,971 B1	04-23-2002	Pelrine et al.	
	A65	US-2002-0058332 A1	05-16-2002	Quake et al.	
	A66	US-6,409,832 B2	06-25-2002	Weigl et al.	
	A67	US-2002-0108096 A1	08-08-2002	Lee et al.	
	A68	US-6,488,832 B2	12-03-2002	Heller	
	A69	US-6,488,872 B1	12-03-2002	Beebe et al.	
	A70	US-6,520,936 B1	02-18-2003	Mann	
	A71	US-6,541,071 B1	04-01-2003	Bookbinder et al.	
	A72	US-2003-0080442 A1	05-01-2003	Unger	

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			Examiner Name	Eric S. Keasel
Sheet	4	of	16	Attorney Docket Number
20174C-002910US				

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Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	A73	US-2003-0134129 A1	07-17-2003	Lammertink et al.
	A74	US-6,667,124 B2	12-23-2003	Suenaga et al.
	A75	US-6,689,473 B2	02-10-2004	Guire et al.
	A76	US-6,713,327 B2	03-30-2004	Leedy
	A77	US-6,716,378 B2	04-06-2004	Yang et al.
	A78	US-6,765,279 B2	07-20-2004	Leedy
	A79	US-6,767,706 B2	07-27-2004	Quake et al.
	A80	US-6,829,753 B2	12-07-2004	Lee et al.
	A81	US-2004-0248167 A1	12-09-2004	Quake et al.
	A82	US-6,847,153 B1	01-25-2005	Balizer
	A83	US-6,866,785 B2	03-15-2005	Zare et al.
	A84	US-2005-0065735 A1	03-24-2005	Lee et al.
	A85	US-6,884,346 B2	04-26-2005	Zare et al.

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		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	B1	EP	0 592 094	A2	04-13-1994	International Business Machines Corporation		<input type="checkbox"/>
	B2	EP	0 703 364	A1	03-27-1996	Fraunhofer-Gesellschaft Zur Förderung Der Angewandten Forschung E.V.		<input type="checkbox"/>
	B3	EP	0 706 004	A2	04-10-1996	Bayer Corporation		<input type="checkbox"/>
	B4	EP	0 779 436	A2	06-18-1997	Frank T. Hartley		<input type="checkbox"/>
	B5	EP	0 829 360	A2	03-18-1998	Xerox Corporation		<input type="checkbox"/>
	B6	EP	0 845 603	A1	06-03-1998	Xerox Corporation		<input type="checkbox"/>
	B7	EP	0 999 055	A2	05-10-2000	Samsung Electronics Co., Ltd.		<input type="checkbox"/>
	B8	EP	1 065 378	A2	01-03-2001	California Institute Of Technology		<input type="checkbox"/>
	B9	GB	2 097 692	A	11-10-1982	Patrick Douglas Shaw Stewart		<input type="checkbox"/>
	B10	GB	2 155 152	A	09-18-1985	Allied Corporation		<input type="checkbox"/>
	B11	GB	2 308 460	A	06-25-1997	Daewoo Electronics Co., Ltd.		<input type="checkbox"/>
	B12	WO	98/07069	A1	02-19-1998	The Regents Of The University Of Michigan		<input type="checkbox"/>
	B13	WO	99/00655	A2	01-07-1999	Immunetics		<input type="checkbox"/>
	B14	WO	99/04361	A1	01-28-1999	Diversified Scientific, Inc.		<input type="checkbox"/>
	B15	WO	99/17093	A1	04-08-1999	The Regents Of The University Of Michigan		<input type="checkbox"/>
	B16	WO	99/52633	A1	10-21-1999	Lumenal Technologies, L.P.		<input type="checkbox"/>

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		Country Code ³	Number ⁴				
	B17	WO	00/00678	A1	01-06-2000	University Of Washington	<input type="checkbox"/>
	B18	WO	00/43748	A1	07-27-2000	YSI Incorporated	<input type="checkbox"/>
	B19	WO	00/60345	A1	10-12-2000	University Of Alabama At Birmingham Research Foundation	<input type="checkbox"/>
	B20	WO	01/06529	A1	01-25-2001	Moeller GmbH	<input type="checkbox"/>
	B21	WO	01/06575	A1	01-25-2001	SRI International	<input type="checkbox"/>
	B22	WO	01/09595	A2/A3	02-08-2001	Emerald Biostructures, Inc.	<input type="checkbox"/>
	B23	WO	02/82047	A2	10-17-2002	California Institute Of Technology AND The Regents Of The University Of California	<input type="checkbox"/>

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<i>(use as many sheets as necessary)</i>				Filing Date	October 23, 2001
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Sheet	7	of	16	Attorney Docket Number	20174C-002910US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
	C1	"Biochips," Nature Biotechnology, Vol. 18, Supplement 2000, pp. IT43-IT44, 2000		
	C2	"Chapter 9: Microfluidic Devices," Micromachined Transducers Sourcebook, pp. 779-882, 1998		
	C3	"Last Chance For Micromachines," The Economist Technology Quarterly, 8 pages, December 7, 2000		
	C4	AHN, CHONG H. et al., "Fluid Micropumps Based On Rotary Magnetic Actuators," Proceedings of 1995 IEEE Micro Electro Mechanical Systems Workshop (MEMS '95), Amsterdam, Netherlands, pp. 408-412, January 29 - February 2, 1995		
	C5	ANDERSON, JANELLE R. et al., "Fabrication Of Topologically Complex Three-Dimensional Microfluidic Systems In PDMS By Rapid Prototyping," Analytical Chemistry, Vol. 72, No. 14, pp. 3158-3164, July 15, 2000		
	C6	ANDERSON, ROLFE C. et al., "Microfluidic Biochemical Analysis System," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 477-480, June 16-19, 1997		
	C7	ANGELL, JAMES B. et al., "Silicon Micromechanical Devices," Scientific American, pp. cover, 44-55, April 1983		
	C8	ARMANI, DENIZ et al., "Re-Configurable Fluid Circuits By PDMS Elastomer Micromachining," IEEE Int. Conf. Micro Electro Mech. Syst. Tech. Digest, Vol. 12, pp. 222-227, 1999		
	C9	BALLANTYNE, J. P. et al., "Selective Area Metallization By Electron-Beam Controlled Direct Metallic Deposition," J. Vac. Sci. Technol., Vol. 10, No. 6, pp. 1094-1097, November 1973		
	C10	BENARD, W. L. et al., "A Titanium-Nickel Shape-Memory Alloy Actuated Micropump," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 361-364, June 16-19, 1997		
	C11	BLOOMSTEIN, T. M. et al., "Laser-Chemical Three-Dimensional Writing For Microelectromechanics And Application To Standard-Cell Microfluidics," J. Vac. Sci. Technol. B, Vol. 10, No. 6, pp. 2671-2674, November 1992		
	C12	BOUSSE, LUC et al., "Electrokinetically Controlled Microfluidic Analysis Systems," Annu. Rev. Biophys. Biomol. Struct., Vol. 29, pp. 155-181, 2000		
	C13	BRECHTEL, R. et al., "Control Of The Electroosmotic Flow By Metal-Salt-Containing Buffers," Journal of Chromatography A, Vol. 716, pp. 97-105, 1995		
	C14	BRYZEK, JANUSZ et al., "Micromachines On The March", IEEE Spectrum, Vol. 31, No. 5, pp. 20-31, May 1994		
		BUCHAILLOT, LIONEL et al., "Silicon Nitride Thin Films Young's Modulus Determination By An		
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	C124	WASHIZU, MASAO et al., "Molecular Dielectrophoresis Of Biopolymers," <i>IEEE Transactions on Industry Applications</i> , Vol. 30, No. 4, pp. 835-843, July 1994			
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/045,132
(use as many sheets as necessary)				Filing Date	October 23, 2001
Sheet	15	of	16	First Named Inventor	B. Scott Driggs
				Art Unit	3754
				Examiner Name	Eric S. Keasel
				Attorney Docket Number	20174C-002910US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
	C126	WHITESIDES, GEORGE M. et al., "Flexible Methods For Microfluidics," Physics Today, pp. 42-48, June 2001		
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